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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
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ART UNIT	**PAPER NUMBER**
2612	

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22

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

Office Action Summary	Application No.	Applicant(s)	
	09/256,411	TANAKA, TAEKO	
	Examiner	Art Unit	
	James M Hannett	2612	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 May 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14,16-18,20,21,23-25 and 27-29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *13,14,18,20,21 and 25* is/are allowed.

6)☒ Claim(s) *1-12,16,17,23,24 and 27-29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *24 February 1999* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

Response to Arguments

Applicant's arguments filed 5/3/2004 have been fully considered but they are not persuasive. The applicant argues that the prior art does not teach the step of changing the zoom speed and the focus speed for maintaining an in focus state in the zooming step in accordance with a shutter speed. Kawasaki et al teaches on Column 59, Lines 50-63 a method of mid-exposure zooming that changes the zooming speed of a zoom lens in accordance with the exposure time or shutter speed of the camera. Kawasaki et al does not teach that the focus speed can also be changed in the zooming step in accordance with the shutter speed in order to maintain an in focus state in the zooming step.

Suda teaches on Paragraph [0028, 0068 and 0071] a zoom lens for performing a zooming operation and a focus lens for maintaining an in-focus state during the zooming operation. Suda teaches that the lens assembly is an inner focus type, so the focus plane moves when the zoom lens is driven. Therefore, the focus lens is driven in accordance with predetermined characteristics as the zoom lens is driven. Furthermore, Suda teaches that the compensating velocity and direction of the focus lens corresponds to the zooming operation.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to enable the camera of Kawasaki et al to maintain an in focus state while zooming using the method of Suda so that a user could see a properly focused image during zooming. Furthermore, because the speed of the zoom lens in Kawasaki et al changes in accordance with the exposure time, since Suda teaches that the lens assembly is an inner focus type, so the focus plane moves when the zoom lens is driven. The focus speed is changed in accordance with the exposure time.

As for the arguments pertaining to Claims 16, 23, and 28 In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "a focus detection characteristic in zooming operation is improved by changing an averaging time of a focus evaluation value that represents a sharpness of an image, on the basis of a illumination of a photographed object) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

As for the arguments pertaining to Claims 27 and 28 In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "a focus detection characteristic in zooming operation is improved by changing an averaging time of a focus evaluation value that represents a sharpness of an image, on the basis of zooming speed) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

As for the arguments pertaining to Claim 29 In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "a focus detection characteristic in zooming operation is improved by changing an averaging time of a focus evaluation value that represents a sharpness of an image, on the basis of blurring information) are not recited in the rejected claim(s). Although the claims

are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1: Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,331,367 Kawasaki et al in view of US-PGPUB 2002/0109784 Suda et al.

2: As for Claim 1, Kawasaki et al teaches in the abstract an image sensing method. Kawasaki et al teaches the use of a power zoom lens having a zoom mechanism. Kawasaki et al teaches the use of a shutter mechanism for controlling the shutter speed of a camera which upon changing the shutter speed changes the amount of time charge will be allowed to be accumulated or stored on an image sensing element. Kawasaki et al teaches on Column 59, Lines 50-63 the use of a control step of mid-exposure zooming in that a zooming speed is selected in accordance with the exposure time or shutter speed.

Kawasaki et al does not teach the use of a camera that has a focusing step that performs a focusing operation during a zooming operation so that an in focus state can be achieved while zooming. Furthermore, Kawasaki et al does not teach the use of controlling to change a focus speed in the zooming step.

Suda et al teaches in the abstract the use of an image sensing apparatus in the form of a camera which can perform a zooming operation of a zoom lens while maintaining an in-focus state of a focus lens. Suda et al teaches on Paragraph [0002 and 0153] the use of signal detection means for extracting a high-frequency component from an image-sensing signal obtained by an image-sensing device such as a CCD, and detecting a sharpness signal. Suda et al teaches on Paragraph [0032] the use of signal extraction means for extracting a peak value of a luminance component in an image-sensing signal. Suda et al teaches in the abstract the use of evaluation value calculating means for averaging sharpness signals during a zooming operation to calculate a focus evaluation value. Suda et al teaches that the focus evaluation value is calculated in accordance with a plurality of focus detection means. Furthermore, Suda et al teaches on Paragraph [0028] the use of speed calculation means for determining a driving velocity of a focus lens in order to compensate the velocity of the focus lens for movement cause by the zooming operation of the zoom lens. Suda teaches on Paragraph [0028, 0068 and 0071] a zoom lens for performing a zooming operation and a focus lens for maintaining an in-focus state during the zooming operation. Suda teaches that the lens assembly is an inner focus type, so the focus plane moves when the zoom lens is driven.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to enable the camera of Kawasaki et al to perform a zooming operation of a zoom lens while maintaining an in-focus state of a focus lens as taught by Suda et al in order to enable a user to view an in focus image while zooming, and to change the speed of a focusing operation in order to compensate the velocity of the focus lens for movement cause by the zooming operation of the zoom lens.

3: As for Claim 2, Kawasaki et al teaches on Column 59, Lines 50-63 the control step of mid-exposure zooming varies the zoom speed when the exposure time is longer than a predetermined time. Therefore, because shutter speed increases as exposure time decreases the process of controlling to decrease the zoom speed occurs when the shutter speed is not more than a predetermined value. Kawasaki et al teaches that the zoom speed is varied by adding a delay equal to one half of the exposure time. Therefore, decreasing the zoom speed when the shutter speed is not more than a predetermined value.

4: As for Claim 3, Claim 3 is rejected for reasons discussed related to Claim 1, since Claim 1 is substantively equivalent to Claim 3.

5: As for Claim 4, Claim 4 is rejected for reasons discussed related to Claim 2, since Claim 2 is substantively equivalent to Claim 4.

6: In regards to Claim 5, Kawasaki et al teaches in the abstract an image sensing method. Kawasaki et al teaches the use of a power zoom lens having a zoom mechanism. Kawasaki et al teaches on Column 6, Lines 40-60 the use of a focus adjustment for correcting movement of a focus plane upon movement of a zoom lens by using a focus lens. Kawasaki et al teaches on Column 6, Lines 40-60 a driving step of independently moving a zoom lens and a focus lens parallel to an optical axis since the automatic focus lens and zooming lens are controlled by independent motors. Kawasaki et al teaches on Column 5, Lines10-14 the selection step of selecting a charge storage time or shutter speed on the basis of information including the photometric signal and film speed, of an image-sensing element. Kawasaki et al teaches the use of a shutter mechanism for controlling the shutter speed of a camera which upon changing the shutter speed changes the amount of time charge will be allowed to be accumulated or stored on

an image sensing element. Kawasaki et al teaches on Column 59, Lines 50-63 the use of a control step of mid-exposure zooming in that a zooming speed is selected in accordance with the exposure time or shutter speed.

Kawasaki et al does not teach the use of a camera that has a focusing step that performs a focusing operation during a zooming operation so that an in focus state can be achieved while zooming. Furthermore, Kawasaki et al does not teach the use of controlling to change a focus speed in the zooming step.

Suda et al teaches in the abstract the use of an image sensing apparatus in the form of a camera which can perform a zooming operation of a zoom lens while maintaining an in-focus state of a focus lens. Suda et al teaches on Paragraph [0002 and 0153] the use of signal detection means for extracting a high-frequency component from an image-sensing signal obtained by an image-sensing device such as a CCD, and detecting a sharpness signal. Suda et al teaches on Paragraph [0032] the use of signal extraction means for extracting a peak value of a luminance component in an image-sensing signal. Suda et al teaches in the abstract the use of evaluation value calculating means for averaging sharpness signals during a zooming operation to calculate a focus evaluation value. Suda et al teaches that the focus evaluation value is calculated in accordance with a plurality of focus detection means. Furthermore, Suda et al teaches on Paragraph [0028] the use of speed calculation means for determining a driving velocity of a focus lens in order to compensate the velocity of the focus lens for movement cause by the zooming operation of the zoom lens. Suda teaches on Paragraph [0028, 0068 and 0071] a zoom lens for performing a zooming operation and a focus lens for maintaining an in-focus state

during the zooming operation. Suda teaches that the lens assembly is an inner focus type, so the focus plane moves when the zoom lens is driven.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to enable the camera of Kawasaki et al to perform a zooming operation of a zoom lens while maintaining an in-focus state of a focus lens as taught by Suda et al in order to enable a user to view an in focus image while zooming and to change the speed of a focusing operation in order to compensate the velocity of the focus lens for movement cause by the zooming operation of the zoom lens.

7: In regards to Claim 6, Kawasaki et al teaches on Column 59, Lines 50-63 the control step of mid-exposure zooming varies the zoom speed when the exposure time is longer than a predetermined time. Therefore, because shutter speed increases as exposure time decreases the process of controlling to decrease the zoom speed occurs when the shutter speed is not more than a predetermined value. Kawasaki et al teaches that the zoom speed is varied by adding a delay equal to one half of the exposure time. Therefore, decreasing the zoom speed when the shutter speed is not more than a predetermined value.

8: As for Claim 7, Claim 7 is rejected for reasons discussed related to Claim 5, since Claim 5 is substantively equivalent to Claim 7.

9: As for Claim 8, Claim 8 is rejected for reasons discussed related to Claim 6, since Claim 6 is substantively equivalent to Claim 8.

10: As for Claim 9, Claim 9 is rejected for reasons discussed related to Claim 1, since Claim 1 is substantively equivalent to Claim 9.

11: As for Claim 10, Claim 10 is rejected for reasons discussed related to Claim 2, since Claim 2 is substantively equivalent to Claim 10.

12: As for Claim 11, Claim 11 is rejected for reasons discussed related to Claim 5, since Claim 5 is substantively equivalent to Claim 11.

13: As for Claim 12, Claim 12 is rejected for reasons discussed related to Claim 6, since Claim 6 is substantively equivalent to Claim 12.

14: Claims 16, 17, 23, 24, and 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over US-PGPUB 2002/0109784 Suda et al in view of USPN 5,587,737 Sekine et al.

15: In regards to Claim 16, Suda et al teaches in the abstract the use of an image sensing apparatus in the form of a camera which can perform a zooming operation of a zoom lens while maintaining an in-focus state of a focus lens. Suda et al teaches on Paragraph [0002 and 0153] the use of signal detection means for extracting a high-frequency component from an image-sensing signal obtained by an image-sensing device such as a CCD, and detecting a sharpness signal. Suda et al teaches on Paragraph [0032] the use of signal extraction means for extracting a peak value of a luminance component in an image-sensing signal. Suda et al teaches in the abstract the use of evaluation value calculating means for averaging sharpness signals during a zooming operation to calculate a focus evaluation value. Suda et al teaches that the focus evaluation value is calculated in accordance with a plurality of focus detection means.

Suda et al does not teach the use of changing the time duration in which the sharpness signals are averaged during the zooming operation in accordance with an object illuminance obtained from the luminance signal.

Sekine et al teaches on Column 2, Lines 10-17 that if an object has a low luminance signal, a long exposure time is set to obtain a sufficiently high signal to noise ratio. Sekine et al teaches on Column 7, Lines 35-40 that the sampling frequency of the shake detection mean or the time duration in which the sharpness signals are averaged is equal to the accumulation time of the image pickup means. Therefore, when the camera detects an object that has a low luminance signal, the exposure time for the camera would be increased to obtain a sufficiently high signal to noise ratio and therefore, the time duration over which the sharpness signals are averaged would be changed in accordance with the illuminance obtained from the luminance signal.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to enable the camera of Suda et al with the luminance detection and correction means of Sekine et al in order to obtain a sufficiently high signal to noise ratio when the object in the field of view has a low luminance signal.

16: As for Claim 17, Sekine et al teaches on Column 2, Lines 10-17 that if an object has a low luminance signal, a long exposure time is set to obtain a sufficiently high signal to noise ratio. Sekine et al teaches on Column 7, Lines 35-40 that the sampling frequency of the shake detection mean or the time duration in which the sharpness signals are averaged is equal to the accumulation time of the image pickup means. Therefore, when the camera detects an object that has a low luminance signal, the exposure time for the camera would be increased to obtain a sufficiently high signal to noise ratio and therefore, the averaging time of the sharpness signals is shortened when the luminance signal is high and lengthened when the luminance signal is low.

17: In regards to Claim 23, Suda et al teaches in the abstract the use of an image sensing apparatus in the form of a camera which can perform a zooming operation of a zoom lens of a first lens group while maintaining an in-focus state of a focus lens of a second lens group. Suda et al teaches on Paragraph [0002 and 0153] the use of signal detection means for extracting a high-frequency component from an image-sensing signal obtained by an image-sensing device such as a CCD, and detecting a sharpness signal. Suda et al teaches on Paragraph [0032] the use of signal extraction means for extracting a peak value of a luminance component in an image-sensing signal. Suda et al teaches in Paragraph [0028] the use of memory means for storing data representing a positional relationship between the zoom lens and the focus lens. Suda et al teaches in Paragraph [0028] the use of speed calculation means for determining a driving velocity of the focus lens on the basis of information stored in the memory. Suda et al further teaches the use of speed addition means for adding a compensating velocity to the velocity of the focus lens in order to compensate for a movement of a focus plane caused by the zooming operation of a zoom lens on the basis of the data in memory. Suda et al further teaches that the correction speed to be added to the standard moving speed of the focus lens is calculated on the basis of the focus signal or the magnitude of the focus evaluation value. Suda et al teaches in the abstract the use of focus control means for averaging sharpness signals during a zooming operation to calculate a focus evaluation value. Suda et al teaches that the focus evaluation value is calculated in accordance with a plurality of focus detection means.

Suda et al does not teach the use of changing the time duration in which the sharpness signals are averaged during the zooming operation in accordance with an object illuminance obtained from the luminance signal.

Sekine et al teaches on Column 2, Lines 10-17 that if an object has a low luminance signal, a long exposure time is set to obtain a sufficiently high signal to noise ratio. Sekine et al teaches on Column 7, Lines 35-40 that the sampling frequency of the shake detection mean or the time duration in which the sharpness signals are averaged is equal to the accumulation time of the image pickup means. Therefore, when the camera detects an object that has a low luminance signal, the exposure time for the camera would be increased to obtain a sufficiently high signal to noise ratio and therefore, the time duration over which the sharpness signals are averaged would be changed in accordance with the illuminance obtained from the luminance signal.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to enable the camera of Suda et al with the luminance detection and correction means of Sekine et al in order to obtain a sufficiently high signal to noise ratio when the object in the field of view has a low luminance signal.

18: As for Claim 24, Sekine et al teaches on Column 2, Lines 10-17 that if an object has a low luminance signal, a long exposure time is set to obtain a sufficiently high signal to noise ratio. Sekine et al teaches on Column 7, Lines 35-40 that the sampling frequency of the shake detection mean or the time duration in which the sharpness signals are averaged is equal to the accumulation time of the image pickup means. Therefore, when the camera detects an object that has a low luminance signal, the exposure time for the camera would be increased to obtain a sufficiently high signal to noise ratio and therefore, the averaging time of the sharpness signals is shortened when the luminance signal is high and lengthened when the luminance signal is low.

19: As for Claim 27, Suda et al teaches in the abstract the use of an image sensing control method in the form of a camera which can perform a zooming operation of a zoom lens of a first lens group while maintaining an in-focus state of a focus lens of a second lens group. Suda et al teaches the use of averaging sharpness signals corresponding to a predetermined time. Suda et al teaches on Paragraph [0002 and 0153] the use of signal detection means for extracting a high-frequency component from an image-sensing signal obtained by an image-sensing device such as a CCD, and detecting a sharpness signal. Suda et al teaches on Paragraph [0028] the use of control means for checking the in-focus state of the camera on the basis of the focus signal and determining a driving velocity of the focus lens based on the focus signal.

Suda et al does not teach the use of changing the time duration in which the sharpness signals are averaged during the zooming operation in accordance with the speed of the zoom operation

Sekine et al teaches on Column 2, Lines 10-17 that if an object appears to be moving at a high speed is to be photographed, a high-speed shutter mode is set to prevent blurring of the edge of the object image. Sekine et al teaches on Column 7, Lines 35-40 that the sampling frequency of the shake detection mean or the time duration in which the sharpness signals are averaged is equal to the accumulation time of the image pickup means. Therefore, when the camera detects an object that appears to be moving at a high speed as a result of the camera zoom operation, the exposure time for the camera would be decreased to prevent blurring and therefore, the time duration which the sharpness signals are averaged would be changed in accordance with the speed of the zoom operation.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to enable the camera of Suda et al with the movement detection and correction means of Sekine et al in order to prevent blurring of an image when the object in the field of view appears to be moving at a high rate of speed due to the movement of the camera zoom lens.

20: As for Claim 28, Suda et al teaches in the abstract the use of an image sensing control method in the form of a camera which can perform a zooming operation of a zoom lens of a first lens group while maintaining an in-focus state of a focus lens of a second lens group. Suda et al teaches the use of averaging sharpness signals corresponding to a predetermined time. Suda et al teaches on Paragraph [0002 and 0153] the use of signal detection means for extracting a high-frequency component from an image-sensing signal obtained by an image-sensing device such as a CCD, and detecting a sharpness signal. Suda et al teaches on Paragraph [0028] the use of control means for checking the in-focus state of the camera on the basis of the focus signal and determining a driving velocity of the focus lens based on the focus signal.

Suda et al does not teach the use of changing the time duration in which the sharpness signals are averaged during the zooming operation in accordance with an object illuminance obtained from a luminance signal in the video signal obtained by photographing an object.

Sekine et al teaches on Column 2, Lines 10-17 that if an object has a low luminance signal, a long exposure time is set to obtain a sufficiently high signal to noise ratio. Sekine et al teaches on Column 7, Lines 35-40 that the sampling frequency of the shake detection mean or the time duration in which the sharpness signals are averaged is equal to the accumulation time of the image pickup means. Therefore, when the camera detects an object that has a low

luminance signal, the exposure time for the camera would be increased to obtain a sufficiently high signal to noise ratio and therefore, the time duration over which the sharpness signals are averaged would be changed in accordance with the illuminance obtained from the luminance signal.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to enable the camera of Suda et al with the luminance detection and correction means of Sekine et al in order to obtain a sufficiently high signal to noise ratio when the object in the field of view has a low luminance signal.

21: As for Claim 29, Suda et al teaches in the abstract the use of an image sensing control method in the form of a camera which can perform a zooming operation of a zoom lens of a first lens group while maintaining an in-focus state of a focus lens of a second lens group. Suda et al teaches the use of averaging sharpness signals corresponding to a predetermined time. Suda et al teaches on Paragraph [0002 and 0153] the use of signal detection means for extracting a high-frequency component from an image-sensing signal obtained by an image-sensing device such as a CCD, and detecting a sharpness signal. Suda et al teaches on Paragraph [0028] the use of control means for checking the in-focus state of the camera on the basis of the focus signal and determining a driving velocity of the focus lens based on the focus signal.

Suda et al does not teach the use of changing the time duration in which the sharpness signals are averaged during the zooming operation in accordance with the information from a shake detection means for detecting a shake of an image sensing apparatus.

Sekine et al teaches on Column 2, Lines 10-17 that if an object appears to be moving at a high speed is to be photographed, a high-speed shutter mode is set to prevent blurring of the edge

of the object image. Sekine et al teaches on Column 7, Lines 35-40 that the sampling frequency of the shake detection mean or the time duration in which the sharpness signals are averaged is equal to the accumulation time of the image pickup means. Therefore, when the camera detects an object that appears to be moving at a high speed as a result of the camera shaking, the exposure time for the camera would be decreased to prevent blurring and therefore, the time duration which the sharpness signals are averaged would be changed in accordance with the movement detected by the shake detection means.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to enable the camera of Suda et al with the shake detection and correction means of Sekine et al in order to prevent blurring of an image when the object in the field of view appears to be moving at a high rate of speed due to the movement of the camera.

Allowable Subject Matter

22: Claims 13, 14, 18, 20, 21, and 25 are allowed.

The following is a statement of reasons for the indication of allowable subject matter: The prior art does not teach the method wherein the evaluation value calculation device includes an averaging time table set in correspondence with various zoom speeds, determines the various zoom speeds by referring to the averaging time, and calculates the focus evaluation value.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James M Hannett whose telephone number is 703-305-7880. The examiner can normally be reached on 8:00 am to 5:00 pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber can be reached on 703-305-4929. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James M. Hannett
Examiner
Art Unit 2612

JMH
June 29, 2004

WENDY R. GARBER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600